

ABSTRACT OF THE DISCLOSURE

5 An electrically small wideband circularly polarized single layer compact microstrip
antenna that permits a substantial reduction in antenna size is provided, by stacking a
semicircular radiating arch on a dielectric substrate and a conductive ground plane that permits
both a considerably reduced antenna length and significantly high efficiency antenna
performance. The radiating arch is composed from a group of arc-shaped segments that are each
separated by a gap, with one segment having an opening allowing a connector center probe to
10 protrude upwards. In the preferred embodiment, the arc-shaped segments are arranged into a
semicircle on the top surface of the dielectric substrate. Other embodiments include an array
antenna and a method for decreasing a wideband circularly polarized compact microstrip antenna
with a given length, A_L .

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